

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (Currently Amended) A method of forming a ZnO nanorod array, which comprises:

coating on a substrate ZnO nanoparticles serving both as a buffer layer and a seed layer; and

growing the ZnO nanoparticles into crystals to form the ZnO nanorod array in a nutrient solution containing nutrients consisting essentially of hexamethylenetetramine and at least one nutrient selected from the group consisting of Zn nitrate, Zn acetate, or and a derivative thereof,

wherein the substrate consists essentially of Si-wafer or is made of Al₂O₃, GaN, ScAlMgO₄, or LiNbO₃, and

wherein the operation of growing the ZnO nanoparticles in the nutrient solution is performed at 90 to 100 °C.

2. (Currently Amended) A method of forming a ZnO nanowall array, which comprises:

coating on a substrate ZnO nanoparticles serving both as a buffer layer and a seed layer; and

growing the ZnO nanoparticles into crystals to form the ZnO nanowall array in a nutrient solution containing nutrients consisting essentially of sodium citrate and at least one nutrient selected from the group consisting of Zn acetate or and its derivative and sodium citrate,

wherein the substrate consists essentially of Si-wafer or is made of Al₂O₃, GaN, ScAlMgO₄, or LiNbO₃, and

wherein the operation of growing the ZnO nanoparticles in the nutrient solution is performed at 90 to 100°C.

3. (Cancelled)

4. (Currently Amended) The method of claim 1, wherein the a volume ratio of Zn nitrate, Zn acetate, or a derivative thereof, to hexamethylenetetramine in the nutrient solution is 10:1 to 1:10.

5. (Currently Amended) The method of claim 2, wherein the a volume ratio of Zn acetate or its derivative to sodium citrate in the nutrient solution is 10:1 to 1:10.

6. (Original) A ZnO nanorod array formed by the method of claim 1.

7. (Original) A ZnO nanowall array formed by the method of claim 2.

8. (Cancelled)

9. (Cancelled)

10. (Currently Amended) The method of claim 1, wherein the nutrients of the nutrient solution contains are hexamethylenetetramine and Zn nitrate.

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) The method of claim 2, wherein the nutrients of the nutrient solution contains are Zn acetate and sodium citrate.